

AMENDMENT OF CLAIMS

(Claim 1, currently amended)

1. A redundant power distribution system having a plurality of distribution lines comprising:

a plurality of regulators provided for respective ones of a plurality N of distribution lines, wherein said plurality of regulators are primary regulators;

a plurality of isolation transformers coupled to said plurality of regulators and having a plurality of isolation boundaries; and

at least one redundant regulator device circuit coupled to said plurality of isolation transformers where M (integer) of the N (integer) plurality of distribution lines are required to be operable so that the system operates properly, wherein said at least one redundant regulator device circuit comprises a plurality of secondary regulators;

said plurality of regulators, redundant regulator device circuit, and isolation transformers forming a non-feedback looped configuration across said plurality of isolation boundaries.

(Claim 2-8, canceled)

(Claim 9, previously presented)

9. A redundant power distribution system comprising:

a plurality of primary regulators provided for respective ones of a plurality N of distribution lines;

a plurality of isolation transformers having inputs electrically coupled to said plurality of primary regulators;

at least one redundant regulator circuit, electrically coupled to said plurality of isolation transformers, is one in which M (integer) of N (integer) distribution lines are required to be operable for the system to operate properly, and forms a non-feedback looped configuration across the plurality of distribution lines; and

a plurality of secondary regulators electrically coupled to outputs of said plurality of isolation transformers.

(Claim 10, previously presented)

10. A system according to claim 9 wherein said plurality of primary regulators comprises at least one controller comparing a primary voltage with a reference voltage and generating an error signal, said controller adjusting voltage output of said plurality of isolation transformers in response to said error signal.

(Claim 11, previously presented)

11. A system according to claim 9 wherein said at least one redundant regulator circuit comprises at least a portion of said plurality of secondary regulators.

(Claim 12, previously presented)

12. A system according to claim 9 wherein said at least one redundant regulator circuit is a single integral unit.

(Claim 13, previously presented)

13. A system according to claim 9 wherein said plurality of secondary regulators have a common output.

(Claim 14, previously presented)

14. A system according to claim 9 wherein said at least one redundant regulator circuit is electrically coupled to each of said plurality of isolation transformers.

(Claim 15, previously presented)

15. A system according to claim 9 wherein said at least one redundant regulator

circuit comprises:

a first redundant regulator circuit coupled to a first isolation transformer and to a second isolation transformer; and

a second redundant regulator circuit coupled to said first isolation transformer and to said second isolation transformer.

(Claim 16, previously presented)

16. A system according to claim 15 wherein said at least one redundant regulator circuit comprises a third redundant regulator circuit coupled to said first isolation transformer and to said second isolation transformer.

(Claim 17, previously presented)

17. A system according to claim 9 further comprising at least one distribution switch electrically coupled to said plurality of primary regulators.

(Claim 18, previously presented)

18. A system according to claim 17 wherein said at least one distribution switch comprises:

a first distribution switch electrically coupled to a first primary regulator of said plurality of primary regulators; and

a second distribution switch electrically coupled to a second primary regulator of said plurality of primary regulators.

(Claim 19-25, canceled)

(Claim 26, previously presented)

26. A method of redundantly supplying and distributing power from a plurality of power sources to a plurality of loads comprising:

coarsely regulating power received from a the plurality of power sources to the plurality of loads;

isolating said coarsely regulating power from power received by at least one redundant regulator circuit which forms a non-feedback looped configuration across the plurality of power sources; and

finely regulating said power received by said at least one redundant regulator circuit to generate a plurality of redundant power outputs to the plurality of loads in a number as required to maintain operability for said power-supplied loads.

(Claim 27, previously presented)

27. A method according to claim 26 further comprising combining said plurality of redundant power outputs.